

### **IN THE SPECIFICATION:**

Please replace the paragraph beginning on page 10, line 24 with the following new paragraph:

Referring now to FIGURE 2, an electrical circuit is disclosed. The wire feed speed selector 10 is represented by a potentiometer represented by resistor  $[[R_1]]$  R1. The voltage signal from the potentiometer passes through line 12 and into an amplifier 24 which increases the voltage along line 22, which in turn is used to control the speed of motor 30. As illustrated in FIGURE 2, the signal from the wire feed speed selector is first amplified prior to being directed to the function generator, whereas in FIGURE 1, the signal is directed directly to the function generator. As can be appreciated, no modifications or other additional modifications to the signal generated by the wire feed speed selector can be used prior to the signal being directed to the wire feed speed motor and/or function generator. As illustrated in FIGURE 2, the wire feed motor 30 drives a welding electrode 50 through welding gun 72 to direct the wire to workpiece 80 and form a desired weld bead.

Please replace the paragraph beginning on page 11, line 6 with the following new paragraph:

As stated above, the amplified signal from the wire feed speed selector is directed to a wave shape network 94 and an amplifier 96 which constitutes the function generator 90. As can be appreciated, the function generator can be formed of merely the wave shape network or can be formed of additional components. The signal generated by the function generator 90 is directed to ~~[[an]] a voltage feedback op-amp 112~~ amplifier 112 on line 92 which in turn directs a signal to SCR firing circuit 106 which is part of the power supply 100. The SCR firing circuit controls transistors X3 and X4 which in turn controls the amount of power directed to the main transformer of the power supply when switch 110 is closed. In standard practice, a series of diodes D1-D4 in conjunction with

capacitor C1 and a choke 108 generates the desired arc welding voltage and/or current that is transmitted to the electrode and workpiece along lines 102 and 104.